

Calculator Workshop

For Statistics

Mean, standard deviation, median, and 5-number summary

- Enter your data into the calculator
 - Press **stat**, highlight edit, **enter**, then enter your data, press **2nd** **Mode** when finished
- Press **stat**, highlight Calc, highlight 1:1VarStats, press **enter**, **enter**
 - \bar{x} is the mean, S_x is the standard deviation, and the 5 number summary is Min, Q_1 , Med, Q_3 , Max

Linear Regression

Calculate slope, y intercept, and correlation coefficient

- Enter your data under columns L_1 and L_2
 - Press **stat**, highlight edit, **enter**, then enter your data, press **2nd** **Mode** when finished
- Find Slope, y intercept, and correlation coefficient
 - Press **stat**, highlight Calc, highlight 8:LinReg(a+bx), press **enter** **enter**
 - a is the y intercept, b is the slope, r is the correlation coefficient

Hypothesis Testing “Z test”

- Press **Stat** , highlight test, highlight 1:Ztest, **enter** ,highlight stats **enter** , enter your information.
 - When done, highlight calculate, press **enter**
 - If $p < \text{critical value}$, reject null hypothesis
 - If $p > \text{critical value}$, do not reject null hypothesis

Hypothesis Testing “T test”

- Press **Stat** , highlight test, highlight 2:Ttest, **enter** ,highlight stats **enter** , enter your information.
 - When done, highlight calculate, press **enter**
 - If $p < \text{critical value}$, reject null hypothesis
 - If $p > \text{critical value}$, do not reject null hypothesis

Hypothesis Testing “P test”

- Press **Stat** , highlight test, highlight choice 5:1PropZtest, **enter** , enter your information.
 - When done, highlight calculate, press **enter**
 - If $p < \text{critical value}$, reject null hypothesis
 - If $p > \text{critical value}$, do not reject null hypothesis






Calculating Intervals

- Z Interval
 - Press **Stat**, highlight tests, highlight 7:ZInterval, press **enter**, enter data, Calculate
- T Interval
 - Press **Stat**, highlight tests, highlight 8:TInterval, press **enter**, enter data, Calculate
- P Interval
 - Press **Stat**, highlight tests, highlight A:1PropZint, press **enter**, enter data, Calculate

Permutation and Combination

- To calculate Permutation, nPr
 - Enter n value, press **Math**, highlight PRB, highlight 2: nPr , press **enter**, enter r value, press **enter**
- To calculate Combination, nCr
 - Enter n value, press **Math**, highlight PRB, highlight 3: nCr , press **enter**, enter r value, press **enter**

Calculating Binomial

- Press , , highlight B:binomcdf(, then press 
- Enter n value,  enter p value  enter x value enter 